

ABSTRACT

Methods and apparatus are provided for a low shock separation joint. A first member couples to a first structure and includes surfaces to prevent separation under compressive and tensile force placed on the separation joint. A second member couples to a second structure and includes surfaces corresponding to the surfaces of the first member. The first member is elastically flexed to allow the surfaces of the first and second members to be aligned to one another. The first member is released from flexing which couples the first and second members together. An explosive device is placed within the separation joint. Detonating the explosive device moves the surfaces of the first and second members out of contact with one another decoupling the first and second members. A passive force is applied to accelerate the first and second members away from one another. After detonation the first and second members are intact.